REPORT OF THE COURT OF INQUIRY

General

1. The Court of Inquiry was carried out over the period 3 February to 16 February 1984. Evidence from twelve witnesses was recorded and considered.

Reference

Approved Military Exercise

2. At the time of his death, Cpl R. NGAIRA was taking part in an authorised military activity, Exercise ALPINE TREK. The aim of the exercise was to train and practise troops in tactical alpine travel on terrain east and west of the Main Divide, and in the crossing of mountain passes.

First Witness
Second Witness
Exhibits A,B,C

Deceased's Participation

3. Cpl R. Ngaira was a member of a seven man climbing team.

Second Witness
Third Witness

Leader of Party

4. The commander of the party was s. 9(2)(a)

First Witness
Second Witness

Climbing Qualifications

5. All members of the party are qualified basic SAS Climbers. Only two men had no previous snow and ice experience. s. 9(2)(a) the leader, had qualified on an SAS Advanced Climber Course, attended two military sponsored alpine mountaineering courses and participated in three exercises in which he gained experience working in alpine conditions. He is rated as an instructor and competent in any New Zealand alpine terrain. Cpl Ngaira had participated in an exercise in which he gained practical experience working in snow and ice.

First Witness
Second Witness
Third Witness
Fourth Witness
Fifth Witness
Sixth Witness
Seventh Witness
Exhibits F,G1-8, M, N1 and N2

Standing Operational Procedures

6. 1 NZSAS has Standing Orders for climbing. These refer to safety and the care and maintenance of equipment. The

First Witness
Second Witness
Exhibit H,L

/orders

orders contained therein, detail the responsibilities and precautions that are to be observed during climbing continuation training. In some aspects they are inappropriate to the exercise that was being conducted as it was not a limited, controlled environment. They were used as a base line and modified where appropriate by s. 9(2)(a) in accordance with his knowledge and experience and the reference material to which he referred.

7. Reconnaissance of Route. A detailed map reconnaissance was conducted and a going-map was produced from reference material during the planning stage. On the day prior to commencing the exercise an aerial reconnaissance was conducted and the selected route was confirmed with the ranger staff at Arthur's Pass.

First Witness
Second Witness
Third Witness
Seventh Witness

Party Equipment

8. The party was properly equipped for the type of exercise being conducted. They were equipped in accordance with the equipment list produced by s. 9(2)(a) This list took into account the equipment prescribed in 1 NZSAS Standing Operating Procedures for Individual Patrol Order, the dress and equipment laid down in Standing Orders for climbing and in addition, equipment that would be required for alpine work.

Second Witness
Exhibits H,I,P

Survival Equipment

9. Each member of the party carried his pack, containing his personal equipment and rations. Provided he remained with his pack and was conscious, he had more than adequate equipment to survive.

Second Witness
Exhibit P

Weather Conditions

10. At the time of the accident it was fine and warm, some light cloud and a light breeze. Visibility was very good.

Second Witness
Third Witness

Ground Conditions

11. In the location where the accident occurred there was a snow-slope between two rock faces. The gradient was about 45 degrees

Second Witness
Third Witness
Fourth Witness

/to the

to the vertical, which is regarded as moderate to difficult in mountaineering terms. The snow had been thawed by the heat of the sun, such that a person walking on the surface sunk to a depth of about 200 millimetres where the snow appeared to be firm. The snow between the surface and where it packs under their weight, was wet and soft. This type of snow is referred to as sludge. It requires packing down to provide foot steps and is relatively difficult to effectively employ self arrest techniques in it. — Eleventh Witness

Use of Rope

12. The party was not roped at the time of the accident. The two climbing ropes carried within the party were still being used to descend the rock face prior to commencing the traverse of the snow-slope on which the accident occurred. The use of the rope was considered. The team leader had still to arrive at the start point for the traverse, to confirm whether ropes were to be used or not, when the accident occurred. — Second Witness, Third Witness, Fourth Witness, Fifth Witness, Sixth Witness

13. There is no rule as to when a rope must be used. It is recognised as a decision that is made at the time having closely examined the immediate terrain and considered the prevailing weather, the experience of the team and the wishes of any individual in the team. The current teaching is towards less use of the rope both for speed and individual safety. — Third Witness; Eleventh Witness

Communications

14. The climbing team had two PRM 4021 Racal man-pack radios. The Support Group had three PRM4021 Racal radios and one AN/PRC 64 HF radio. A 24 hour listening watch was maintained by the Support Group. There was a planned daily HF Radio schedule between the Support Group and Papakura. The frequencies were obtained for the Arthur's Pass and Mt Cook National Park Headquarters for direct communication to ranger staff. The frequencies of the Mountain Radio Service, for monitoring of weather forecasts, and International Distress were recorded. The climbing team had the capability of direct communication with Papakura on the appointed schedule. — First Witness, Second Witness, Third Witness, Fourth Witness, Fifth Witness, Sixth Witness, Eighth Witness, Exhibits A,J

/15. Communications

15. Communications were established between the climbing team and the Support Group prior to the climb beginning on the morning of the accident. After the accident communications could not be established from the immediate area, nor could they be established from the team's night location. Communication was established the following day. It is apparent that terrain was the cause of no communications. — Fourth Witness, Eighth Witness

Contributing Factor

16. There is confusion over the instructions given to the team for the traverse of the section where the accident occurred. A route had been made by s. 9(2)(a) A conversation took place between s. 9(2)(a) and s. 9(2)(a) about that route. Cpl Ngaira started to traverse the slope, paralleling the tracks made by s. 9(2)(a) and about five metres uphill from them. After a few steps he lost his footing and began to slide. It is apparent that Cpl Ngaira crossed out of turn and did not use the established route for the traverse. — Second Witness, Third Witness, Fourth Witness, Fifth Witness, Sixth Witness

Equipment Contribution to Accident

17. The average weight of equipment carried by the team was about 65 pounds. The ALICE pack, through its design and the position of its centre of gravity, tended to unbalance the climbers. While there is no evidence that the equipment caused the fall, having fallen, the weight and bulk of the equipment hampered Cpl Ngaira's attempts at self-arresting his slide. — Second Witness, Third Witness, Fourth Witness, Fifth Witness, Sixth Witness, Seventh Witness, Eleventh Witness

Immediate Action

18. After the accident happened, the team established themselves secure where they were. s. 9(2)(a) then issued instructions for the movement of the group, and to s. 9(2)(a) who was across the slope. Using ropes the team descended in the direction that Cpl Ngaira had gone. A search of the area was carried out for about four to five hours as they descended. — Second Witness, Third Witness

19. An unsuccessful attempt was made to establish radio communications within a — Second Witness, Fourth Witness

/short time

short time of the accident occurring. Attempts were also made later that evening. The following morning two members of the team walked out to Arthur's Pass Park Headquarters and made contact with rangers at about 0830 hours.

Seventh Witness
Tenth Witness
Eleventh Witness

20. s. 9(2)(a) Having reached the Park Headquarters, made telephone contact with 1 NZSAS Operations Officer and advised him of the situation at about 0900 hours. Telephone contact was maintained thereafter.

First Witness
Seventh Witness
Eighth Witness
Exhibit K

Assessment of Actions

21. The action taken by the climbing team after the accident was completely correct. Within the limitations imposed by the terrain, these actions were also timely.

Tenth Witness
Eleventh Witness

Rescue Equipment

22. The team was not lacking in any equipment that would have assisted rescue. Any rescue attempt was dependent on locating Cpl Ngaira.

Tenth Witness
Eleventh Witness

1 NZSAS Team Qualifications

23. In the opinion of the Police and Park Ranger staff the 1 NZSAS team was appropriately qualified to conduct the exercise. From their observations, there was a good blend of varying levels of experience within the team.

Tenth Witness
Eleventh Witness

24. There is no doubt that the 1 NZSAS team was in possession of equipment appropriate to the location and the conditions likely to be encountered.

Tenth Witness
Eleventh Witness

Reporting Action

25. All initial reports and subsequent reports as required by DCO(A) Vol 2 Part 15 Chapter XI were actioned as information became available. Subsequent action required by DCO(A) Vol 2, Part 15, Chapter IX is near completion and the final Unit report is under action and is not unduly delayed.

Ninth Witness
Twelfth Witness

/Conclusions

Conclusions and Recommendations

26. The court concludes that Cpl Ngaira's accident was not caused by the lack of any equipment or the actions of any other member of the team. There is no indication that the safety aspects of the exercise were deficient. The exercise being conducted has no civilian equivalent, it combines two separate activities, climbing and tramping. The operational requirement imposes a heavy equipment load, this conflicts with the climbing ideal of carrying a light load. The court considers that exercises of this type should continue and recommends that build-up training be conducted to acquaint personnel with the weight problem. There are no recommendations to improve safety on future exercises.

Dated at Papakura this 17th day of February 1984

President
s. 9(2)(a)

Member
s. 9(2)(a)